STEELHEAD MANAGEMENT IN WASHINGTON: PAST, PRESENT AND FUTURE  

Bern Shanks

Bern Shanks is the current Director of the Washington Department of Fish and Wildlife. Mr. Shanks responds to the federal government threat of listing several steelhead and salmon species under the Endangered Species Act. Washington, along with several other western states must prove they have a serious plan to manage steelhead and salmon effectively or face ESA listing this year. The Osprey applauds Mr. Bern Shanks for his stand on wild steelhead and salmon and urge your support for this plan to save fish on the brink of disaster.

Washington’s wild steelhead, like their cousins, the salmon, are in trouble and their future—and salvation—lies in the state’s adoption of an effective Wild Salmonid Policy.

A draft of that policy will soon be available to the general public. I urge everyone who appreciates wild steelhead and salmon for whatever reason to obtain a copy of the draft policy by calling (360) 902-2700. Read it, evaluate the five options it contains and then get involved. Contact the Fish and Wildlife Commission. Write letters, call a legislator, attend a planning commission meeting, plant trees on river banks. Whatever you do, get active in salmon conservation.

This state must convince the federal government that it is serious about reversing years of wild steelhead and salmon mismanagement. Several steelhead and salmon runs face listings under the Endangered Species Act this year if federal officials determine that the action is warranted and they don’t believe we are serious about pursuing an effective plan.

Oregon also faces the same threat. It is taking this threat so seriously that it is proposing a $30 million Oregon Salmon Restoration Initiative that is drawing wide political support from the governor, state legislators and a wide array of business, agricultural, environmental, sports and commercial groups.

What happens if Washington fails to take similar widespread and deep-rooted measures? Many stocks may become extinct. Fishing opportunities will disappear. Severe economic repercussions are very likely. In California, recently, for example, a federal judge used federal law to invalidate irrigation contracts for 500,000 acres to protect wild salmonids.

Unfortunately, we are tardy in tackling the problem. The Legislature mandated a Wild Salmonid Policy by 1994. The final product—a full public comment period—won’t be ready for commission approval until later this year.

How did we get into this steelhead and salmon predicament?

We didn’t get the wake-up call until 1992. That was when the Washington Department of Fish and Wildlife and treaty tribes completed a process known as the Salmon and Steelhead Stock Inventory (SASSI). The process pulled together the available knowledge about the status of wild steelhead and salmon as part of a statewide effort to maintain and restore wild stocks and fisheries.

SASSI told us that out of 141 native steelhead stocks in Washington streams
and rivers:
- 44 were weak
- One was critical
- 36 were healthy
- 60 were in unknown condition

It was a wake-up call because the resource was compromised. The protection and restoration of self-sustaining wild salmon and steelhead runs had clearly been inadequate. No one suspected 45 stocks, possibly more, were in such poor condition.

In part, the managers were surprised because little is known about wild steelhead run sizes prior to 1960. Historic information is virtually nonexistent for Puget Sound, the coastal streams, including those that enter Grays Harbor, Willapa Bay, and lower Columbia.

The Yakima River, one of the few systems for which we have historical data, was once estimated to have an annual run of tens of thousands of steelhead. In fact, counts of steelhead at Rock Island Dam from 1933 to 1959 suggest the entire upper Columbia may have seen a total of approximately 5,000 steelhead each year. Now it has fewer than 2,000. By the time these Rock Island counts were made the runs already may have been in poor shape.

Regardless of our lack of specific knowledge, it can be said that native steelhead populations have dropped significantly from historic levels.

Management Evolution

In general, fisheries are managed on a run-by-run basis. That means spawning goals are set for each stock. Surplus fish beyond the number needed for spawning are divided equally between Indian and non-Indian fishers. Thus the development of specific spawning goals for each river system is important not only for the sake of the stock but also for allocation of harvest. Only when it is expected that the spawning or escapement goal is met should directed harvest on a particular stock be allowed. The process of developing escapement goals is an important feature of the stock management plans.

"The protection and restoration of self-sustaining wild salmon and steelhead runs had clearly been inadequate. No one suspected 45 stocks, and possibly more, were in such poor condition."

Prior to the early 1980’s, steelhead escapement goals were developed using a variety of methods such as averaging past escapements or estimating the number of spawners based on available habitat.

In 1983 the former Washington Department of Game developed a new approach. This was based on the carrying capacity (the number of fish for which there was habitat and other life necessities) of each river system coupled with an estimate of the maximum sustained harvest (MSY).

MSY is the theoretical maximum number of fish that can be removed from the population by fishing on a sustained basis. The development of this method utilized information from previous department studies as well as others from Washington, Oregon and British Columbia. The fairly complex approach involved developing spawner/recruit (S/R) models whereby the number of successful spawners provides some relationship to the number of progeny and subsequent adult returns, known as recruits. Once identified MSY becomes the minimum escapement goal.

In a theoretical way, S/R relationships can be extremely useful in developing appropriate escapement goals. But practically the relationships are difficult to achieve since they require information from enough consecutive years of catch and escapement counts which will reveal a S/R trend for each river system. These data are not available for most areas.

As a result, information from similar river systems were combined to develop these relationships. The Western Washington model, based on present run sizes, equated to about a 40 percent exploitation rate. Similar studies in Oregon and on the Columbia estimated MSY at 50 to 70 percent.

Hatchery practices also were integrated into management efforts with the intent of providing additional steelhead fishing opportunities without targeting wild stocks.

A key practice designed to protect wild stocks was to develop hatchery runs that returned to rivers before the wild fish. That presented the opportunity to allow selective fishery seasons—anglers fished when the hatchery stocks were present and the rivers were closed to protect wild runs. Chambers Creek, a watershed near Tacoma, was the primary source of these early-run hatchery steelhead.

This stock was first cultured in the 1920’s and then introduced throughout Western Washington, including Puget Sound and the lower Columbia. The return timing of this stock is significantly earlier than most native winter stocks, with river entry occurring from mid-November through January. Native fish generally return from January through April. As much as 90 percent of the steelhead harvested from some western Washington streams is attributed to this stock.

Another hatchery stock is known as Skamania. This is a summer steelhead with Washougal and Klickitat river origins. It was developed in the 1950s at the Skamania Hatchery. This stock has been introduced to provide recreational fish opportunities in rivers, such as the Willamette, where summer steelhead did not naturally exist. It has also been introduced in rivers with endemic steelhead populations, such as the Stillaguamish and various Columbia River tributaries.

A third hatchery stock originated from crossing Cowlitz and Chambers Creek wild stocks. This is the popular angling target of Cowlitz River steelheaders. It has also been introduced into other Washington Columbia tributaries as well as rivers in California and other states.

Approximately 4.5 million winter and 3.5 million summer hatchery steelhead currently are planted annually in Washington waters. Chambers Creek smolts are planted in most major river systems throughout Puget
Sound and along the Washington coast, including tributaries to Grays Harbor and Willapa Bay.

No hatchery steelhead are planted in the Nisqually River or the Lake Washington systems. Hatchery plants were discontinued in those waters to rebuild wild steelhead runs. The Yakima River is the only major Columbia River tributary that receives no hatchery fish for the same reason.

The department has attempted to achieve its primary goals of restoring and maintaining the diversity and long-term productivity of Washington’s wild steelhead in addition to providing harvest opportunity by awarding for maximum sustained harvest for natural stocks and using hatchery stocks that return earlier than wild fish. However, SASSI has demonstrated that many runs have continued to decline. The Wild Salmonid Policy is designed to be a comprehensive new start that addresses the crisis in an effective way. It also recommends a simple but critical management principle. WDFW’s highest responsibility is to treat wild fish as our client, not fishers, and not the fishing industry.

Future of Wild Steelhead

Steelhead runs have a variety of serious problems throughout Washington. Perhaps our healthiest native populations exist along the Washington coast. But even those stocks are in danger. Poor land management practices, especially from timber harvest, have stripped much of the area down to bare earth, and pristine regions exist only within the boundaries of the Olympic National Park.

In Puget Sound, a combination of factors has led to the significant decline of steelhead and salmon runs. Loss of habitat, including flooding, damming, sedimentation, development and poor land management practices throughout much of the region, is a major factor. Along with growing urbanization, this trend is likely to continue.

Fish-blocking dams have been the major cause of steelhead decline in the Columbia River.

Many critical problems, such as the operation of Columbia River dams, are outside the jurisdiction of WDFW. For example, mitigation plans will not bring back the once thriving salmonid populations of the Columbia. We can make improvements. But salmon and steelhead will not return in pre-dam numbers so long as the dams remain. The real question is one society needs to confront: Are we going to sustain wild steelhead and salmon species in the Northwest or not? Are we a society willing to make critical choices or not? Will past practices and easy compromises continue, or will we choose to maintain our Northwest quality of life for future generations? In the case of the Columbia it comes down to power versus fish. In Puget Sound the primary battle is urbanization versus fish. Timber versus fish is the issue on the coast. Harvest and hatchery management problems must also be solved.

The debate on these issues continues. In the meantime, we can act. We can lead and make known the consequences of maintaining our present courses. And we can develop an effective and conservative policy that would rebuild healthy salmonid runs.

The draft Wild Salmonid Policy identifies a preferred department option that is intended to act as a beacon to draw attention to what needs to be done if the state is serious about rebuilding its salmonid runs. That option, if adopted, will restore wild steelhead and salmon runs as quickly and effectively as science will allow. Other options offer a slower, less certain path to salmonid recovery. The primary drivers of this policy are the need to maintain the genetic diversity of the fish; restore native populations to healthy levels; and to protect and restore habitat. The objectives will be difficult to achieve, and they will mean significant changes in hatchery practices, harvest levels and in the ways in which we treat our streams, rivers, wetlands and estuaries.

For example, we will have to review and modify our hatchery practices. We have learned planting hatchery fish that return earlier than wild fish is not enough. We must reduce the number of hatchery fish that mat with wild steelhead. Hatchery/ wild spawning is a major problem in some rivers, and may mean we must stop planting hatchery fish in rivers where wild runs are in poor shape. Other solutions, such as removing hatchery fish prior to spawning by using weirs or developing local brood stocks, may be satisfactory. The draft Wild Salmonid Policy recommends restricting the mating of hatchery and wild fish to one percent of a river’s spawning level where the two stocks are dissimilar. Mating would be limited to 10 percent of the spawning levels in rivers where hatchery stocks were similar to the wild steelhead.

Hatchery plants would be discontinued in small river systems where wild steelhead populations are limited under the Wild Salmonid Policy’s preferred option.

The proposed policy also would redefine a “healthy” steelhead population. MSY escapement goals no longer would be the standard. Spawning goals would be raised above MSY levels to provide adequate buffers to protect wild steelhead runs.

That means the implementation of catch-and-release fisheries only for wild fish where stocks are in trouble. Selective fishing on hatchery stock is also an essential tool. And the tribes would have to agree to increase spawning goals and reduce harvests where wild steelhead runs are in poor or critical condition.

The department proposes changing first those things that can be done most easily. It has jurisdiction over hatchery operations and fishing regulation. Change is coming in those areas. and we can provide leadership and guidance in Department Wild Salmonid Policy as well.

The state has to change its habitat stewardship to return steelhead and numerous other fish and wildlife populations to their earlier levels. The Department of Fish and Wildlife has very little control over the decisions landowners, municipalities and corporations make that can enhance, or degrade, habitat. Many others must help solve the problem.

The ecological health of our watersheds and the ability of steelhead to migrate up and down our rivers is critical to other
efforts designed to rebuild the wild runs.

Unfortunately, habitat degradation is insidious, and has consequences that reveal themselves only after long periods of abuse. Specific changes to the habitat are difficult to quantify in terms of losses in fish productivity.

The Wild Salmonid Policy's intent is to deal with the causes, rather than the symptoms, of poor stewardship. We are entering a new era. Every citizen of the state has a responsibility as well as a vested interest in helping assure that steelhead and salmon remain our Northwest heritage.

Everyone should insist on a conservative Wild Salmonid Policy, and then help with the hard work ahead to make it a reality. ▲

LETTERS __________________________ From Our Readers

We appreciate your viewpoints and comments. Write to us at: Editor, The Osprey, P.O. Box 84211, Seattle 98134.

Editor,

For years I have admired what the Steelhead Committee has been doing to enhance one of our greatest resources! Thanks for your hard work.

Best wishes for 1997,
Tom White
Seattle, WA

Editor,

The Osprey is an excellent piece of work that will surely become more valuable as steelhead stocks are listed [through the ESA.] I particularly appreciate your coverage of Columbia Basin Steelhead.

Thanks,
Pat Ferg
Boise, ID

Editor,

Anyone interested in steelhead or salmon should read "A History of the Salmonid Decline in the Russian River." This August 1996 document, sponsored by the Sonoma County Water Agency, the California Coastal Conservancy and Steinier Environmental Consulting, is a real eye-opener. Copies are available from the Sonoma County Water Agency.

Sonoma County Water Agency
2150 W. College Ave.
Santa Rosa, CA 95402
Cost: $4.50

Yours truly,
Herb Joseph
Vallejo, CA

Editor,

Having watched the steady deterioration of the planet and its resources over six plus decades, I'm beginning to wonder if anything truly constructive and of major impact will really ever come to pass. The destroyers and the ignorant are many fold and growing proportionally to the global population. It is painful to see the natural world being torn asunder with no concern for the long term future of life as we've known it.

The Osprey is and has been a first class publication on behalf of steelhead populations and supporting ecosystems. It is certainly a tragedy that the general populace and the political decision makers continue to largely ignore information that could keep earth blue, green, beautiful and bountiful.

Enough of my sermonizing.

Best Wishes for 1997,
Dick Vandemark
Bellingham, WA

WHIRLING DISEASE
UPDATE __________ from the WHIRLING DISEASE FOUNDATION

As reported in Issue 28 of The Osprey, whirling disease has found its way to Northwest steelhead streams with measurable effects (John Sager's article on Grand Ronde steelhead). Here is a news release from the Federation of Fly Fishers written by the Whirling Disease Foundation on this devastating disease.

Summary: Conference emphasizes need for greater focus on critical whirling disease risk factors and continued scientific cooperation.

The 110 fish scientists, managers, and policy makers who met in Logan, Utah on March 6-8, 1997 agreed that although a cure for whirling disease is not yet available, important progress has been made.

The 30 papers presented shed new light on the geographic distribution of the disease; its diagnosis; the relative sensitivity of different fish strains to the disease; and the interactions among the parasite (Myxobolus cerebralis) and its worm (T. tubifex) and fish (various salmonid species) hosts.

Significant insights included:

- Age of fish, dose of infection, and temperature all influence degree of infection.
- While many trout species and strains are susceptible to whirling disease, there are other species and strains that are much less susceptible.
- Increased emphasis must be put on refining methods for diagnosing whirling disease in live fish (currently fish must be sacrificed to diagnose.)

Bob Wiltshire, representing the Federation of Fly Fishers (a conference co-
SALMON FARMING INDUSTRY THREATENS
B.C.’S WILD FISH STOCKS

OCT. 24, 1996. VANCOUVER—Open netcages, unregulated drug use, and imported Atlantic salmon eggs threaten wild fish stocks, according to a David Suzuki Foundation report released today.

The way it operates today, British Columbia’s salmon netcage industry threatens the survival of fragile wild fish stocks, such as the Fraser River salmon and may even put human health at risk. To manage these hazards we must immediately stop importing Atlantic salmon eggs, monitor drug use, and change the open fish cages which release sewage and diseases to closed pens,” says the Foundation’s Executive Director, Jim Fulton.

The Suzuki Foundation says B.C.’s industry stands in sharp contrast to the sound practices followed in 85 percent of the world’s fish farming which is carried out on land and closely tied to agriculture. Fish wastes in Asia are used as crop fertilizer, but in B.C. become sewage.

“The unsurpassed wild environment along the B.C. coast supports a multi-billion dollar commercial and sport fishery and tourism business. It is the foundation of Native culture, and it provides a home and recreation for hundreds of thousands of people. We appreciate the jobs salmon farming can bring. But this study tells us we stand to lose far more than we gain. We need to set this industry on a course which helps us, not hurts us,” explained Fulton.

The major risk is that wild fish could be decimated by the spread of virulent diseases. The problem starts with the netcage system itself. These cages float in the ocean and are filled with high densities of farm fish. The jammed and stressful conditions of the netcages mean they can become breeding grounds for disease epidemics. The use of fish grown from Atlantic salmon eggs compounds this danger. Atlantic salmon are preferred by the industry because they grow more rapidly and they are more docile. The trouble is, the imported fish can bring new diseases with them which can spread like wildfire among our native fish. To combat these threats, the industry injects fish with drugs and regularly mixes drugs with the feed.

These measures don’t always work. In Norway the industry uses similar netcage systems to those in B.C. There, eggs imported from Scotland brought epizootics of such diseases as furunculosis, which spread rapidly among wild fish. In fruitless efforts to control the spread of disease, the Norwegian government spent, in one instance, $100 million of taxpayers’ funds. In an earlier attempt to eradicate an epidemic, the government completely poisoned 20 rivers.

The fundamental problem is that the netcages are open to the ocean environment. Farm fish escape which leads to genetic and other harmful interactions with wild fish. Sewage from fish faces and other wastes which contains disease pathogens and drugs builds up in areas around the netcages. In total these sewage is equivalent to the amount produced by a half million people. This refuse is deposited right into the food chain along the B.C. coast, to be picked up by fish such as black cod, herring and salmon.

Eight disease outbreaks have already occurred, and many scientists report that a large-scale epidemic will eventually happen among both wild and farmed fish. The netcages are typically located in sheltered bays such as Clayoquot Sound, areas with rich marine life. Nearly fifty of the cages are found among the islands and bays along Johnstone Strait, right in the path of most Fraser River spawning salmon.

“At least 140 distinct salmon stocks in B.C. are already extinct. To help rebuild salmon stocks, commercial, native and sport fishermen made big sacrifices this year. We need to make sure this sacrifice is not in vain,” says Fulton.

The netcage industry’s use of drugs has been targeted by the Foundation because of its possible effects on human health. The repeated use of drugs to hold the fish diseases at bay has already led to diseases fully resistant to three types of antibiotics. This cavalier and largely unregulated overuse of drugs concerns scientists because it reduces the pool of antibiotics available for human medicine.

Around netcages drug residues are found in the fish and shellfish which are used for food by local communities, particularly First Nations. There is no government monitoring of these health effects or the effects on fish farm workers who are frequently exposed to antibiotics and other drugs.

The David Suzuki Foundation makes 12 recommendations. They include using only native salmon; using closed containment systems which fully treat sewage and prevent contact with wild fish; mandatory industry insurance covering full ecological restoration of catastrophic events; and government monitoring of drug use and the spread of drug-resistant diseases.

The Foundation is submitting its report to the Salmon Aquaculture Review which is currently being conducted by B.C.’s Environmental Assessment Office. 

For more information please contact:

David Hocking
Communications Director,
The David Suzuki Foundation
(604) 732-4228
THE CHAIRMAN'S MEND

Pete Soverel

River Friends:

Steelhead and people, even well-meaning ones, do not mix well. Unlike most other places in the world, Kamchatka, which is is mostly devoid of people and transportation infrastructure, is the best place left for steelhead.

We are all familiar with the evils associated with the people-driven four “H”s—hatcheries, harvest, habitat and hydro development. Commercial fishers also over-harvest. Loggers destroy habitat. Dams block migration corridors and so on. The people behind these projects are powerful, and have created powerful interests for them.

To be successful, steelhead conservation must be supported broadly by the public at large and the angling community. In other words, steelhead and steelhead rivers need friends—lots of them. To paraphrase Haig Brown, a river without friends is a river in trouble.

So we have developed a great reaction to the decline of steelhead: hordes of dedicated, politically-active anglers, conservationists and friends forcing enlightened management practices upon spineless bureaucrats. But in practice, despite (or because of) these legions of steelhead anglers and conservationists (these “friends,”) steelhead and their West Coast rivers are in deep crisis. Sadly, friends often create their own sets of problems while loving the rivers and their wondrous steelhead to death. With fewer steelhead and more anglers, steelhead friends all too often come to view each other as competitors, adversaries, even enemies: gear fishers/fly fishers; natives/non-natives, commercial/recreational, and resident/non-resident. Steelhead and salmon are the common bond among the various groups and also the source of enmity.

In the end, enmity destroys the ties that bind. Managers manage people rather than salmon and steelhead. Based upon a century of practice, it is clear that this management paradigm is not effective.

Regrettably, friends fight over the allocation of the very resource that provides the common ground. When they do, the fish lose. British Columbia is about to re-validate this by pitting resident against non-resident angler.

Ten years ago, Skeena River steelhead runs were headed toward functional extinction caused by commercial over-harvesting of steelhead in the Canadian and Alaskan commercial sockeye salmon fisheries. B.C. anglers knew Skeena steelhead were in trouble. Provisional fisheries folks knew Skeena Steelhead were in trouble and why. Nothing effective was done. Commercial fishers continued to intercept upwards of 75 percent of all Skeena steelhead.

Reversing the trend on the Skeena was an international effort. American editor Tom Pero highlighted the desperate plight of Skeena steelhead—for an international audience—in a definitive article (Trout magazine, Autumn 1990.) American, Yvon Chouinard, funded a special mailing of Pero’s magazine to thousands of Canadian politicians, managers and civic leaders. Residents and non-residents joined forces in the Wild Steelhead Campaign spearheaded by Ehor Boyamovsky (then-president of the Steelhead Society of British Columbia.) The Campaign galvanized government and interest groups to protect Skeena steelhead. They produced a powerful video, Symbol of Survival (the story of Skeena steelhead) that was widely distributed in both Canada and the United States. Americans provided much of the start-up funding for the Campaign and about half of the overall funding.

The Federation of Fly Fishers weighed-in. Wild Steelhead & Atlantic Salmon, Trout, The Fly Fisher, Fly Fisherman and other U.S. publications editorialized on the subject. In its own modest way, The Osprey contributed to the international effort with a letter-writing campaign, numerous feature articles, editorials, and guest opinions, including a comprehensive statement from Canadian Minister for Fisheries and Oceans (responsible for the Skeena River commerc-
13 percent of historic levels. Anglers, resident and non-resident, deserted the Skeena’s hundreds of miles of steelhead runs and riffles. Local businesses suffered (guide operations, mom & pop stores, bed & breakfasts, hotels, motels, and so on.)

Now, with the restrictions imposed on the commercial salmon fishery, Skeena steelhead runs have rebounded. Anglers, resident and non-resident, have returned with the fish; good news for steelhead and for local businesses.

The bad news is that local north-country anglers, among others, don’t like outsiders. Never mind the critical, irreplaceable help non-residents provided with saving Skeena steelhead and changing Canadian anachronous fish management policies. The trouble is that the rebounding Skeena steelhead runs, the cheeky fishers have the gall to actually come to B.C. to angle for steelhead.

Responding to bleats from some B.C. outfitters and pressure from segments in the B.C. Wildlife Federation, the provincial government has imposed strict new limits on non-resident anglers including $40/day steelhead licenses on most productive steelhead rivers including the Skeena and all its tributaries. Provincial officials justify the three hundred percent increase in non-resident licenses on the basis that:

- this is what the citizens of B.C. want—increased license fees will keep the irksome non-residents away;
- B.C. steelhead is an endangered fish, for which the price to fish in B.C. should move to more to fish B.C.

But of course this view is at odds with the democratic history of steelhead angling which is completely different from the Atlantic salmon tradition of private water and privileged anglers who are often the captors of the very industries that have ruined most Atlantic salmon and steelhead runs throughout the world. Conservationists, hell, these boys are frequently the enemy.

In steelhead country, CEO’s share the runs and riffles with the less affluent who make up the bulk of the battle forces for steelhead conservation.

Using the convoluted, double-sided, voodoo accounting practiced only by politicians and bureaucrats, the Province projects (simultaneously):

- increased revenues—the sizable number of non-residents will come and buy the more expensive licenses, thus balancing a billion dollar budget shortfall with a $100,000 license program;
- decreased non-resident angling pressure thus making some of the local anglers happy—never mind the related multi-million dollar decrease in non-resident tourist dollars.

Not only did Provincial officials institute massive increases in non-resident license fees, they refused to impose effective conservation regulations on the Thompson River where non-residents will be expected to pay $40/day for a steelhead run numbering less than a thousand fish in a Skagit-sized river. If steelhead fishing is so under-valued in B.C. why did the Province have to enact emergency closures last month for many east coast Vancouver Island streams?

Theoretically, non-resident anglers and conservationists should be content in the knowledge that they did the right thing. They worked to save the steelhead not for themselves but for the fish. Still, the Provincial officials and grumpy locals strike me as ingrates reminiscent of the “what have you done for me lately” crowd.

In pragmatic ways the Provincial decisions targeting non-residents will influence the calculus of conservation politics and action. There are many fights that could be fought. The Osprey has limited political capital and editorial space. Why should The Osprey, the Federation of Fly Fishers, American members of the Steelhead Society, etc. expend energy to limit the U.S. commercial interception of Fraser sockeye to protect the many hundreds of Thompson River steelhead caught in that fishery? Such battles have costs—political and otherwise—all to protect a steelhead run that non-residents are no longer welcome to fish, but where we will be tolerated at $40/day.

Alternatively, should American organizations go to the mat with the powerful Alaskan Senator Stevens (Chairman, appropriations committee) to restrict American catches of salmon and steelhead bound for B.C.’s northern rivers—Take, Sitka, Nass and Skeena—and risk his support for important American conservation issues (Endangered Species Act re-authorization, mining reform, grazing fees, Columbia River recovery, Elwha dam removal, etc.)?

No thanks.

Sure, part of the Skeena flows through Canada, and the Stikine, Takin and Vedder flow through the U.S., and I know that someday Americans will need help from B.C. anglers and conservationists like we gave on the Skeena, Kitimaat Completion Project, Kitlope preservation and so on. Still, when I see a B.C. license along the Skagit in the spring, I get a slow burn. I shouldn’t, but I can’t help it—gratitude and common interest cut both ways.

Rivalry and ill-will among steelheaders is always bad. We lose friends. Rivers and their steelhead need defenders. I know of no steelhead river, Canadian or American, that can afford the loss of any friend.

B.C. should re-think its position on non-resident anglers. ▲

Wild Steelhead Need Your Help.
To receive The Osprey, please send this form and your donation today.
Thanks for your support.

Name ____________________________
Address __________________________
City ___________________ State ______
Zip ____________________________
Phone __________________________
I am a:
□ citizen conservationist
□ commercial outfitter/guide
□ professional natural resources mgr.
□ other ▲

▲ Yes, I’ll help protect wild steelhead
□ $4 basic subscription
□ $25 dedicated angler level
□ $35 gone fishing
□ $50 for future generations of anglers

but here’s my contribution $_________.
□ my fish might not return home
□ Other $_________.

Please send information about the Kamchatka Expeditions.
THE POACHER’S LAMENT

Here’s how fishers can get their names in bold type.

As reported in Issue 27, poaching for steelhead continues unabated, despite its high cost for those caught at it. The WDF&W enforcement files reveal a statewide spate of illegal angling in the fall months of 1995, touched on in our earlier article. Data for 1996 has not been collected for inspection. The citations reported here are public information; records of citations which have not been adjudicated by a court are off-limits to publication. All named are Washington residents.

Randall Monroe of Leavenworth forfeited bail of $152 for fishing in the Wenatchee River on August 5, in Selective Fisheries waters; he was using worms and eggs.

Harold Wasson of Issaquah forfeited bail of $152 for fishing in the Wenatchee River on July 22 in Selective Fisheries waters; he was using bait and a barbed hook.

Dustin Rose of Mt. Vernon forfeited bail of $95 for fishing the Samish River on October 21, at the time closed waters.

Stanton McDaniel of Tumasket forfeited bail of $152 for fishing in the Similkameen River on October 21. He was using treble hooks in Selective Fisheries waters.

As proof that men aren’t the only culprits, Patricia Peterson of Pacific forfeited bail of $95 for fishing the Green River’s Car Body hole on September 9, at the time closed waters.

Another Green River visitor, David Hall of Federal Way, forfeited bail of $95 for fishing the Main Street hole without a license (date not recorded).

The same hole on the same river attracted Matthew Custer of Auburn on September 27. Matthew’s problem was that the waters were closed and he was snagging salmon. Each of these miscues carries a $95 price tag; part of his total was forgiven but it cost Custer $150.

The Green, within Auburn’s city limits, also wooed Kenneth Hillstead and Guy Henry of Bonney Lake on September 7, when the waters were closed. Each forfeited bail of $95.

Farther upstream, near the Howard Hansen dam, Brian Kosko of Ravensdale and Robert Tinker of Enumclaw were fishing on September 2, without licenses. Each forfeited bail of $95.

Steven Lind of Federal Way found the Green’s waters at the Highway 18 bridge to his liking on September 25. The fact that these were closed waters resulted in forfeited bail of $95.

Double trouble on the Green greeted Robert Kilmer of Auburn on September 16, when he was fishing in closed waters without a license. Cost in forfeited bail: $190.

Another no-license-in-closed-waters fisher, same river, same date, was Mark Kembrowski of Auburn. Perhaps Mark and Robert were fishing together but in any case Mark also forfeited bail of $190.

Earlier in the year, April 2, Mike Harris of Kent fished the Green near the Kummer bridge, closed season for those waters. Rather than forfeit bail, he went to court and was found guilty; fine: $150.

Another fisher who preferred not to forfeit bail was Kevin Page of Lynnwood. He was on the Snohomish River on July 19, pursuing steelhead without a punch card. The judge found him guilty and fined him $50.

In September four fishers were found in various violations on the S. Fk. Skykomish River, a selective fisheries area. Randall Asa of Des Moines was using a barbed treble hook; $95 bail forfeiture. Thomas Wright of Skykomish forfeited bail of $95 for using barbed hooks. Maurice Gordon of Bothell also forfeited $95 for the same offense. And John Sampson of Edmonds took his case (fishing without a license) to the judge who forgave $45 of the usual $95 fine.

On the Columbia River, on July 1, Kevin Trevena of Woodland was found guilty of fishing for steelhead without a license and was fined $70.

Another judge found Manuel Rodriguez guilty of fishing in closed waters on the Wallace River, October 28, and fined him $47.

Then there is the intriguing case of Erin Leigh Bradley of Seattle. The 25-year-old Ms. Bradley was fishing Dry Falls Lake on September 9, clearly not in pursuit of steelhead but in water that is essentially fly-fishing only. (Hence its interest here.) At 1:30 in the afternoon she was issued a citation for fishing with gear and bait in these Selective Fisheries waters and for exceeding the legal limit on trout. At 5:45 p.m. the same day she received another citation for fishing without a license. (One would like to speak to the field agent about this.) Ms. B. took her case to a judge who partially suspended some of her fine(s). Total cost to her: $161.

This listing is by no means exhaustive of the fall 1995 season. We will add two more here because of their implications, fishing being one of those western traditions in which father and son share some of their best moments together. Or so one would hope.

July found Robert Teague and 19-year-old Daniel Teague, both of the same address in Marysville, fishing the Wenatchee River near Lea Park, a Selective Fisheries area. Robert forfeited bail of $304 for fishing with bait and a barbed hook and for possessing undersized game fish. Daniel forfeited bail of $247 for fishing with bait and a barbed hook and without a license.
1996 HONOR ROLE
OF CONTRIBUTORS

$500 AND UP
JIM HUBBARD
PETE SOVEREL

$100 TO $499
NICHOLAS H. ANDERSON
ARTHUR L. CARLSON
HUGH CLARK
CLARK-SKAMANIA FLY FISHERS
CLEARWATER FLYCASTERS
EVERGREEN FLY FISHING CLUB
MERLIN GILBERTSON
MAURICE E. HOLLOWAY
RICHARD IGMIERAN
CALDER MCKAY
JERRY L. MYERS
NORTHWEST STEELHEADERS,
PORTLAND
GREGG PITTS
HAL RINEY
THOMAS INVESTMENT COMPANY
RAY WHITE
TOM WHITE
ANONYMOUS

$50 TO $99
RAY AUSTIN
HAROLD BOSWELL
DANIEL H. BYRNES
THOMAS H. CLARK
ROBERT CUMPSTON
JAMES I. DOI
DOYLE EVERS
FIDALGO FLY FISHERS
PAT FORD
DONALD F. FRAZIER
PATRICK J. FURRER
HOWARD JOHNSON
DON KNEASS
MARK A. KUIPERS
LOWER COLUMBIA FLY FISHERS
JON B. LUND
NAKIA LODGE
RICHARD B. NEGLEY
ALLAN POOBUS
ROBERT A. SCHMEIZLE
JAMES A. SMITH
STEELHEAD SOCIETY OF BC, NW
CHAPTER
MARK TURNER
RICHARD VANDEMARK
JIM AND KITTY VINCENT
KENNETH WILLIAMS
PATRICK D. WOOD
STANFORD YOUNG

$25 TO $49
RICHARD ABRAMS
ROBERT J. BEHNKE
PETER H. BROOMHALL
JOHN S. CALHOUN
RICHARD W. CARNS
CORTLAND LINE COMPANY
JOHN M. CUNNINGHAM
EDWARD S. CURRENCE
GEORGE H. DEKAY, JR.
DALE DIETZMAN
FRANCIS DOHERTY
WILLIAM K. DOWNING
PAUL DROLLINGER
ALICE J. ELLIOTT
ROBERT C. FRANCIS
SEAN GALLAGHER
NICK GAYESKI
MICHAEL LEE GOODMAN
ROCKWELL HAMMOND
THOMAS HENDERSON
DOUGLAS R. HERMAN
WILLIAM HOOPER
FRED S. HOUWINK
DAVID L. JOHNSON
RICHARD JOHNSON
JOHN KENAGY
WILLIAM M. KIAR
WILLIAM KUEST
DAVID LENTZ
VANCE J. LUFF
PHILIP D. LUND
MICHAEL F. MAY
GREGORY MCDONALD
JOHN J. MCGRATH
BOB MCLAUGHLIN
ROBER M. MEeks
DAVID W. NARVER
R. W. RICHARDSON
JAY SCOTT O'DELL
KELLY O'NEILL
PAUL T. PALMER
JIM PAUTZKE
A. TED PEARSON
ERIC PETTINE
WALTER PRICK
LEO J. PROBY
RICHARD A. RAISLER
MIKE RAMSAY
BILL REDMAN
JERRY E. REEVES
NORMAN F. RICHARDSON
MICHAEL P. ROGERS
BRIAN ROTH
PAUL SHER
MARTY AND JOYCE SHERMAN
RICHARD W. SMITH
P. C. SHODROE
DONALD SPLINTER
PETER STROH
RICHARD SWAN
IAN R. TEMPLETON
JOHN THOMPSON
GARY H. THORGAARD
PAT TROTTER
BOB WEDDELL
JAMES WILHELM
RICHARD WILLIAMSON
DAVID B. WOOD
JOHN WOODS

NOTE:

THE NUMBER OF
HONOR CONTRIBUTORS
INCREASED ALMOST
THREEFOLD OVER THE
YEAR BEFORE,
FROM 39 IN 1995
TO 115 IN 1996.

THANK YOU ALL!
REMINISCENCE:
WHEN WOULD YOU RATHER FISH?

Steve Fransen

Steve is almost in a class by himself where steelheaders are concerned. He was an anadromous fish biologist with long experience along the Skagit River. For many years he has also pursued our favorite fish with a flyrod. Few can match his artistry in the sport.

The Osprey asked if I would prepare a reminisce piece for The Osprey readers. I countered that it hardly seemed appropriate, since it is usually the reminiscences of the experienced and wizened old timers that most of us enjoy and value the most. Those of you who know me should understand why I might have a problem writing a piece like this. Let me relate it through an analogy. I was driving home over the pass after a long and satisfying weekend of steelhead fishing on the dry side of the state one autumn. I sometimes get drowsy while driving, so to help stay awake and find a bit of entertainment, I spun the radio dial until I chanced on some music that suited me. There they were, the Temptations, the Moody Blues, and the Doors, perfect for what was often a sleepy drive home. I hope you can imagine my shock and utter dismay, when a few tunes later, the announcer informed me that I was listening to the golden oldies station! That was the first time my interests had been defined as old.

That same feeling descended on me when The Osprey suggested I pen a piece about steelhead fishing when it was still good. "You know that I wasn't fishing during those 'good old days,'" I protested. Still, The Osprey insisted that I am experienced enough. I began steelhead fishing less than 30 years ago; just before the numbers of wild steelhead seemed to fall through the floor in the Puget Sound area rivers of western Washington.

When I began fishing for steelhead, it seems that most, or at least many, of the older anglers were already bemoaning the loss of the good steelhead fishing they had experienced 10, or even 20 years earlier. During my time on the rivers, initial years of the catch and release seasons on the Skagit and Sauk Rivers (1981), the wild run wasn't much different than it has been over the last six or seven years. Six to 10 thousand native wild steelhead each year was the range.

So was the fishing actually any better? In one sense, yes it was. The key difference is that fewer anglers were participating in the fishery, so on the average, those anglers who did fish caught more fish each season because the supply of fish was spread among a smaller population of steelheaders.

The Skagit River steelhead population is healthy, but it is not large relative to the size of the river basin. I consider the population healthy because the average escapements seem to fill the juvenile rearing areas to capacity. And if the population were not healthy and at, or near, carrying capacity, then the occasional larger spawning escapements would result in even larger subsequent run sizes. But that generally has not happened. If improved marine survival rates and freshwater survival conditions should both coincide anytime soon, we might see a run size that is much like what occurred in 1986, about 16,000 fish, or even a few more. But there is nothing at this time to indicate that the basin can produce wild steelhead populations of 30,000 or 40,000 adult fish.

Most of you already know that a fish population is limited by the amount and quality of its critical habitat. I don't expect any exceptional increases in the Skagit River steelhead population in the foreseeable future because the supply and quality of available steelhead habitat is not increasing. Unfortunately, I suspect it is still decreasing.

The only remaining pristine habitat is in the national park or wilderness areas, and most of that is not in the anadromous fish production zone. The presence of those protected headwaters does, however, generally result in better habitat quality in downstream reaches where steelhead do spawn and rear.

I dislike seeming pessimistic about steelhead fishing, but if you want to experience the best fishing for wild steelhead in Washington state, fish now. If the present trends that affect steelhead habitat quantity and quality are not halted and reversed, in a few years someone will be asking you to write a reminiscence piece for The Osprey about the good steelhead fishing you had in the mid-1990's. You know, before the turn of the millennia when the fishing really became poor. If this paragraph shocks you, then you've developed a reasonably accurate sense of what the long term population trend has been and is for—wild steelhead and salmon.

Maybe you would rather have me reminisce about the really big steelhead I caught in 1982 and 83 or even this year? No, you're not going to read about that sort of thing here. The large fish caught are not fundamentally important. They are memorable, just like the two itty-bitty ones I've caught. Certain fish that I have caught stand out from the rest because they are significantly outside the normal bounds of steelheading experience. They may have been larger, smaller, run further, or jumped higher and more often. But I would fish for steelhead with no less enthusiasm if the big fish, and the possibility of hooking one, didn't exist. Wouldn't you?

If I had something in my steelheading experience to reminisce about, I think it would be a Skagit River time and place none of us have ever experienced. Osprey readers ought to have an opportunity to get a glimpse of the Skagit River basin as it might have been known to people in an earlier time. Seasoned and novice steelheaders nowadays know a Skagit River basin that is extensively developed for needs unrelated to the natural world and its wild steelhead. We know a broad river valley that for more than a century has been developed for agriculture in the floodway and on the floodplain. We know river channel meanders, that formerly were fish habitat, that have been given over to agriculture and urbanization (goodbye fish; make way for Walmart and its discount fishing tackle to use...where?) We also observe that the soil's natural capacity to store water has been compromised as the land is intensively developed for forest management, and in some cases we might say, timber mining. Among other things, this
results in sluiced out tributaries that formerly were nurseries of juvenile steelhead, leaving behind poorer quality habitat and less of it.

The upper mainstem of the Skagit and its tributary, the Baker River, are developed for hydroelectric energy production. These developments have resulted in considerable benefit. But, can you think of even one way in which any of these have benefited the propagation of wild steelhead? You might think that steelhead would benefit from the flood protection provided by the Skagit dams. That appears to be true in some ways, but that benefit seems to have been offset by other, as yet unquantified, costs because the 14 miles of the Skagit River immediately downstream of Gorge Powerhouse at Newhalem has demonstrated rather poor steelhead production even as the tributary steelhead populations and some of the salmon runs to that mainstem area have thrived.

Let’s understand what wild steelhead might have found for a home stream in earlier times. This can be done through my connection to the past. I was fortunate to know an Upper Skagit Indian named Lawrence Boone for a few years prior to his death in 1980. He was known to everyone by the nickname Knuckle. I never asked how he got the nickname, but I always sensed that he had known a rougher lifestyle in his younger years than I experienced. Knuckle lived along the Skagit River all his life, and had done more that a little fishing, mostly for salmon.

Although he preferred a gillnet to a flyrod, he had a lot of experience fishing with a hook and line. Use of the gillnet in the Skagit River required considerable discreteness in the years before the U.S. vs. Washington decision in 1974. So he caught steelhead and trout (meaning sea-run cutthroat) with casting tackle of indifferent description. Knuckle claimed no mastery of sportfishing technique. He could catch what he wanted. The fish were at least that abundant in the 1940’s through the 1960’s. Knuckle wore nothing higher than knee boots for wading gear and never heard of the neoprene waders that seem so essential now. Casts of 30 or 35 feet were about what he could manage, and that seemed to be far enough. I remember him telling me that he thought steelhead swim close to shore. I agree that many or most of them do in a river like the Skagit, but the length of his casts precluded him from ever knowing about the fish that might have been found further toward midstream.

Knuckle saw habitat changes along the river, noting them initially for the way they affected favored fishing places. Channel changes that he mentioned to me occurred, along the lower reaches of Alder, Cumberland, and Rinker Creeks. These streams now all flow nearly straight from the lower road crossings to their mouths. Apparently they flowed along alluvial plains more or less parallel to the major stream before entering it. The result now is that the tributaries are shorter, and steeper, in the reach that provided habitat to anadromous fish. Cumberland and Alder Creeks are nearly a mile shorter. These three creeks have been good steelhead producers. They can’t possibly have benefited from the reduction in the amount of steelhead habitat.

The Baker River used to have a right bank distributary that left the main channel just upstream of the present day Highway 20 bridge. The Little Baker River, as it was locally known, meandered down the dry wash behind the gravel pit for a mile, maybe more. Knuckle and others reported that it was a popular fishing site among Indians who caught chinook and chum salmon there. I don’t know what its steelhead production characteristics were then, but obviously it is zero today.

One of the benefits of a friendship with Knuckle is that he had his own connections to the Skagit River past. Knuckle’s grandfather, Albert Boone plied the waters of the Skagit poling a long shovel-nosed dugout canoe. Upstream and down. As a canoeist myself, I’m rather humbled by the thought. Apparently Albert traded goods and supplies up and down a certain section of the river before reliable roads were common. This gave Albert a lot of opportunity to troll. Since fishing was coincidental to his transportation and commerce, he used hand line and hook baited with a strip of red flannel. I can’t help but wonder if this might have been the first incidence of “harling a fly” on the Skagit River. Knuckle reported that his grandfather mainly caught Dolly Varden this way. He thinks other fish may have been caught while trolling, but it must not have been many since Albert didn’t give special account of it.

The other significant fishery that Knuckle’s grandfather related was the Baker River. All the usual species of migratory fish ascended the Baker, plus early running coho salmon and summer steelhead. But it was the sockeye salmon, that returned to Baker Lake in July, and the strategic fishing locations available among the rapids and cascades in the lower Baker River canyon that made this an especially important fishery. With dipnets and spears, the Indians were able to harvest fairly large quantities of salmon. Members of the Sauk-Suiattle Tribe would leave their homes at Sauk Prairie and join in the fishery on the Baker River when the sockeye were running. The historical run size has been estimated at up to 20,000 sockeye, so a significant fishery for the Indians was possible on this fairly small river.

The Lower Baker Dam inundated the fishing area in about 1925, and salmon run sizes there and to the Skagit basin were already depressed because of excessive commercial fishing pressure in the lower Skagit River and bay with both gill nets and fish traps. But commercial salmon fishing was a summer and fall enterprise. Records that I have tried to reconstruct imply that native winter steelhead runs persisted in very good numbers until at least the late 1960’s.

If this reminiscence had been about fishing the late winter run steelhead in the early 1900’s, access would be difficult, there would be no paved or gravel roads, no jet boats, fiberglass drift boats, or even hypalon inflatables. Travel would have been in a shovel-nose canoe or one of the sternwheelers that plied the Skagit for a time.

But since I have no reminiscence of the early 1900’s, why not let Albert Boone be your guide. You would have all the gear you now use except your neoprene waders, including a Leonard rod of split cane, a good reel made in England, a tapered silk line from Hardy because the nice Marvin Hodges tapers from Ashaway were not available yet, and flies on forged steel hooks. No problem. Just remember to soak those gut leaders and dry your line after every trip. A small price to pay and so very well worth it.

When would you rather fish? ▲
...whirling, continued from page 4

spons or, noted that, "This conference made it very clear that there are a number of biological and environmental factors that
determine whether trout will be impaired by
whirling disease. Continuing to identify
these critical variables gives us hope that we
can ultimately minimize whirling disease in
tROUT waters throughout the country."

The conference also yielded a strong
spirit of cooperation for research to be
carried out during 1997-1998. The following
efforts were emphasized:

1. Refine standard methodologies for dis-
ease diagnosis and susceptibility.
2. Determine genetics and ecology of the
parasite and the alternate host worm.
3. Determine fish species susceptibility in-
cluding identification of factors favor-
able for infection (fish age and size, tem-
perature, dose, etc.).
4. Survey additional lakes and rivers for
presence of disease.
5. Develop a database and generate models
for risk assessment.
6. Identify parasite transmission sources

IN THIS ISSUE

Steelhead Management in Washington 1
Whirling Disease Update 4
Letters to the Editor 4
Salmon Farming 5
The Chairman's Mend 6
Poaching 8
1996 Honor Roll 9
Reminiscence 10

The Osprey © 1997

All materials are copy protected and require
permission prior to reprinting or other use.

and develop plans for containment and
decontamination.
7. Evaluate possible fish population resto-
ration programs.

Even greater inroads are possible during
the 1997-98 research season if additional
funding were to be available. You can help
by contributing to the Whirling Disease Foun-
dation, a non profit 501 (c) (3) organization
with a mission to support whirling disease
research: P.O. Box 327, Bozeman, MT
59711-0327. Symposium proceedings are
available for $8 from the Foundation.

The 1998 whirling disease symposium is
scheduled for February 19-21 in FortCollins,
Colorado. ▲

Issue No. 29, May 1997
Mark Somers, Editor
Linda Hanlon, Production

Recycled paper and printed with
toy-based inks by Eco-Graphics.